

In the Claims:

Please amend claims 1, 3, 21, 26-29 as follows.

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1. (Once Amended) A network access server (NAS) providing a connection to a user in a data communications network, said NAS capable of communicating with a home gateway server (HGS) maintaining a pool of IP addresses for allocation to authorized users associated with the NAS, said NAS comprising:

a first memory location for storing an identification of a user;

an authenticator for asking the HGS for an IP address on behalf of the user, said asking occurring without the use of a tunnel; and

a second memory location associated with the first memory for storing the IP address of the user received from the HGS.

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3. (Once Amended) The network access server of claim 1, further comprising:

a receiver for receiving periodic queries from the HGS about the status of the user connection to the NAS; and

a responder responsive to said periodic queries for informing the HGS that the user is still connected to the NAS.

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21. (Once Amended) A method for providing an IP address to a user in a data communications network, the method comprising:

establishing a connection with a user;

receiving an identification and a request for an IP address from the user;

storing the identification in memory;

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requesting the IP address from a home gateway server (HGS) on behalf of the user, said
requesting occurring without the use of a tunnel;
receiving the IP address from a remote server;
storing the IP address in memory; and
transmitting the IP address to the user.

26. (Once Amended) A program storage device readable by a machine, tangibly
embodying a program of instructions readable by the machine to perform a method for providing
an IP address to a user in a data communications network, the method comprising:

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establishing a connection with a user;
receiving an identification and a request for an IP address from the user;
storing the identification in memory;
requesting the IP address from a home gateway server (HGS) on behalf of the user, said
requesting occurring without the use of a tunnel;
receiving the IP address from a remote server;
storing the IP address in memory; and
transmitting the IP address to the user.

27. (Once Amended) The program storage device of claim 26, wherein the method
further comprises:
detecting a continuing connection with the user; and
sending periodic keep-alive messages associated with the user to the remote server for as
long as continued connection with the user is detected.

28. (Once Amended) The program storage device of claim 26, wherein the method further comprises:

receiving periodic queries from the HGS about the status of the user connection; and
responding to said periodic queries that the user is still connected.

29. (Once Amended) The program storage device of claim 26, wherein the method further comprises:

receiving periodic queries from the HGS about the status of the user connection; and
responding to said periodic queries that the user is still connected.

(New) An apparatus for providing an IP address to a user in a data communications network, the apparatus comprising:

means for establishing a connection with a user;
means for receiving an identification and a request for an IP address from the user;
means for storing the identification in memory;
means for requesting the IP address from a home gateway server (HGS) on behalf of the user, said requesting occurring without the use of a tunnel;
means for receiving the IP address from a remote server;
means for storing the IP address in memory; and
means for transmitting the IP address to the user.

(New) The apparatus of claim 30, further comprising:

means for detecting a continuing connection with the user; and

means for sending periodic keep-alive messages associated with the user to the remote server for as long as continued connection with the user is detected.

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A 32. (New) The apparatus of claim ~~30~~⁴⁵, further comprising:

means for receiving periodic queries from the HGS about the status of the user

connection; and

means for responding to said periodic queries that the user is still connected.

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~~33.~~ (New) The apparatus of claim ~~32~~⁴⁷, further comprising:

means for receiving periodic in-use signals from the user; and

means for forwarding information to the HGS that the user is still connected.

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~~34.~~ (New) The apparatus of claim ~~32~~⁴⁷, further comprising:

means for identifying an HGS to which to forward the user's request for an IP address,
 said identifying in response to call information associated with an incoming line used by the user.